PRODUCT DATASHEET

52V 30Ah Metal
E-BIKE BATTERY

Samsung INR21700-50G Cells · JBD Smart BMS

Rated 1,560Wh capacity. Built fresh to order and bench-tested before shipping.

DOCUMENT TYPE	Technical Specification & Product Data Sheet
BATTERY MODEL	BOOANT 52V 30Ah Metal eBike Battery

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1. Overview

A 52V 30Ah (1,560Wh) metal lithium-ion battery built with 84 genuine Samsung INR21700-50G cells in a 14S6P configuration, for cargo bikes, e-trikes, delivery fleets and high-power mid-drive upgrades up to 2,500W. The cells sit in a heavy-duty stainless steel enclosure with a top-mounted LCD display and a JBD smart Bluetooth BMS, and the pack ships with a 58.8V 5A smart fast charger and a fireproof safety bag. Every pack is built fresh to order and bench-tested before shipping.

2. Key Features

- **Genuine Samsung 50G cells** — 84 authentic Samsung INR21700-50G cells (14S6P) deliver a rated 1,560Wh, with stable voltage under load and no rewrapped or B-grade cells.
- **JBD smart Bluetooth BMS** — 50A (150A peak) or 60A (180A peak) options matched to motors up to 2,000W or 2,500W, with cell balancing and full protection monitoring via the app, plus an on-chassis LCD display.
- **Stainless steel armor** — The heavy-duty stainless steel enclosure protects the 8.5 kg pack against trail vibration, impact and rust, and acts as a passive heat sink during continuous high-amp riding.
- **58.8V 5A fast charger included** — A full 0 to 100% charge takes approximately 7 hours, at 0.83A per cell across the 6 parallel groups, from a CC/CV charger with active fan cooling.
- **Connector of your choice** — QS8 plug, Anderson SB50, XT90F/M, XT60F/M or Wire only, on 10AWG silicone leads. Anderson SB50 is rated 50A, so for the 60A tier choose QS8 plug or XT90F/M.
- **Bench-tested before shipping** — Every pack runs a full charge and discharge test before it leaves, and the test report is available on request. Covered by a 2-year warranty.

3. Technical Specifications

Nominal voltage	52V
Rated capacity	30Ah (1,560Wh)
Cell type & configuration	Samsung INR21700-50G, 84 cells, 14S6P
BMS	JBD smart BMS with Bluetooth: 50A (150A peak) / 60A (180A peak)
Motor compatibility	Up to 2,000W (50A BMS) / 2,500W (60A BMS)
Full-charge voltage	58.8V
Discharge cut-off voltage	39.2V (2.8V per cell)
Charger	58.8V 5A, CC/CV, fan-cooled, included
Charge time	Approx. 7 hours (0 to 100%)
Dimensions	200 x 165 x 145 mm
Weight	Approx. 8.5 kg (18.7 lb)
Discharge connectors	QS8 plug / Anderson SB50 / XT90F/M / XT60F/M / Wire only (10AWG silicone lead)
App	JBD app (XiaoxiangBMS), iOS & Android
Display	Top-mounted LCD: remaining percentage, live voltage, core temperature

Enclosure	Heavy-duty stainless steel, fireproof safety bag included
Cycle life	Up to 1,000 full charge/discharge cycles (actual life depends on load, storage and temperature)

4. Smart BMS, Bluetooth App & LCD Display

The authentic JBD smart board actively manages the cell matrix at hardware level, with premium MOSFETs and 10AWG silicone leads. Hard-coded safety limits shut down discharge the moment the pack hits its minimum safe floor of 39.2V (2.8V per cell). Dual temperature probes cut current instantly if internal heat reaches 65°C, and block incoming charger current below freezing (0°C). Active cell balancing during the final CV charging phase keeps the 84-cell layout even. Live tracking is available via the Xiaoxiang App, and the top-mounted LCD shows remaining percentage, live voltage and core temperature without a phone.

5. Charging

Charge only with the included 58.8V 5A charger, a CC/CV unit with active fan cooling. The LED shows solid red while charging and solid green when fully charged and cell balancing is finished, or when the charger is connected to AC power without a battery connected (standby). A full charge takes approximately 7 hours. At 5A across 6 parallel groups, each cell charges at about 0.83A.

6. Enclosure & Fitment

The pack measures 200 x 165 x 145 mm and weighs about 8.5 kg. The stainless steel casing resists crushing, twisting and side-impact forces, and its metallic body draws warmth away from the cell core during continuous high-amp riding. Check your mounting space against these dimensions before ordering; this is a rigid metal box, not a soft triangle pack.

7. What's Included

Battery pack with your selected BMS rating and discharge connector, 58.8V 5A smart fast charger, AC power cable (plug matched to your country), fireproof safety bag, discharge lead with your selected connector pre-wired (10AWG silicone wire), and an app download QR code inside the package. The pack is built fresh to order for your selection.

8. Warranty & Support

Covered by the BOOANT 2-year warranty (24 months or 600 cycles to 70% capacity retention, whichever comes first, per the BOOANT warranty policy). Questions about this product: support@booant.com.

Specifications are taken from the product data for this model. BOOANT packs are built to order; if your setup needs a different connector or BMS rating, select it on the product page or contact us before ordering.